A SELECTIVE, ANNOTATED BIBLIOGRAPHY ON CURRENT SOUTH ASIAN ISSUES

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PREFACE

This bibliography provides selective annotations of open-source material on two current issues:

--nuclear developments in South Asia, and

--tactics and organization of the Afghan resistance

The bibliography incorporates serials and monographs received in the previous month and is part of a continuing series on the above subjects.

Entries within each topic are arranged alphabetically by author or title. Call numbers for materials available in the Library of Congress are included to facilitate recovery of works cited.

CONTENTS

1. NUCLEAR DEVELOPMENTS IN SOUTH ASIA

GLOSSARY OF TERMS

AEMC	The Atomic Energy Minerals Center at Lahore is responsible for finding and recovering uranium ore, thereby filling a vital need stemming from boycotts of Pakistan by international nuclear fuel suppliers.
BARC	Bhabba Atomic Research Centre is located in north Bombay and is India's facility for research in and development of nuclear technology.
CHASHNUPP	Pakistan's Chashma Nuclear Power Plant, a projected 900-megawatt facility in Mianwali District, Punjab, was sanctioned in 1982 in order to create electrical power through light-water technology.
Cirus	A Candu-type Canadian-built plant located at BARC, Cirus was commissioned in 1960. India reprocessed spent fuel from Cirus to make the plutonium for its 1974 "peaceful nuclear explosion;" Cirus has a capacity of 40 megawatts.
Dhruva	One of the world's few high-flux reactors, Dhruva, which went critical in August 1985, is solely the product of Indian research and production, and therefore, falls completely outside IAEA safeguards. Dhruva shares facilities with Cirus, its neighbor in the BARC, has a 100-megawatt capacity, and can produce 30 kg of plutonium annually.
IAEA	International Atomic Energy Agency (United Nations)
Kalpakkam	This Tamil Nadu town is the site of the Indira Gandhi Atomic Research Center (formerly MAPP) and gives its name to a 40-megawatt fast-breeder reactor which went critical in August 1985 using plutonium-uranium carbide fuel.

KANUPP	Karachi Nuclear Power Plant, a 125-megawatt reactor, was supplied by Canada on a turnkey basis and became operational in 1972.
MAPP-1	Madras Atomic Power Project's first Candu-type 235-megawatt unit was commissioned in January 1984. The center is located at Kalpakkam, Tamil Nadu, and was produced completely by Indian research and technology; consequently, its units and the plutonium they produce fall outside IAEA inspection safeguards. MAPP units are intended to provide electricity for Madras. In October 1985, MAPP was renamed the Indira Gandhi Atomic Research Center, but new names for individual plants have not been made public.
MAPP-2	The second unit at Madras Atomic Power Project is also a Candu-type 235-megawatt plutonium and heavy-water reactor. MAPP-2 went critical in August 1985 and was commissioned in October of the same year.
NPT	The Nuclear Nonproliferation Treaty was ratified by the UN General Assembly in 1968. India and Pakistan contend that the NPT discriminates against nonnuclear states, but Pakistan has repeatedly offered to sign if India will do so simultaneously. In the UNGA, Islamabad voted in favor of the NPT.
PAEC	Pakistan Atomic Energy Commission
PINSTECH	Pakistan Institute of Nuclear Science Technology, the site of a US-supplied 5-megawatt "swimming pool"-type reactor installed in the 1960s
Tarapur	The Tarapur nuclear power plant, located near Bombay, was built by the United States. It has a capacity of 600 megawatts and can annually produce 50 to 80 kg of plutonium. Tarapur and its products come under IAEA inspection safeguards.

CITATIONS AND ABSTRACTS

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"500-MW N-Reactor by '96." Telegraph (Calcutta), 13 March 1987, p. 5.

K.R. Narayanan, Minister of State for Atomic Energy, announces that India is likely to commission its first 500-MW reactor in 1995-96. Design and engineering for the reactor is already at an advanced stage. The 15-year nuclear power profile prepared by the Department of Atomic Energy envisages the addition of twelve 235-MW units and ten 500-MW units of pressurized heavy water reactors.

"Atom Centre." Statesman (Calcutta), 14 March 1987, p. 1.

Dr. Raja Ramanna, Chairman of the Atomic Energy Commission, announces that the government plans to build a nuclear technology center in Assam, the first of its kind in northeast India. The center is expected to cost 100 million rupees.

"City Thorium Unit To Be Closed Down." Indian Express (Bombay), 26 March 1987, p. 7.

K.R. Narayanan, Minister of State for Science and Technology, announces that the equipment at the Bombay thorium plant is obsolete and that the plant will be closed down. Half of the plant's 200 employees will be transferred to a new plant currently under construction at the Orissa Sands Complex, while the rest will be relocated elsewhere in the Department of Atomic Energy.

Speaking during the question hour of the Lok Sabha (Lower House of Parliament), Narayanan adds that the problems with the steam generators at the Narora Atomic Power Plant have been overcome, and that the plant is expected to be commissioned in the latter half of 1988.

"India Increases Nuclear Budget $50-million." Nucleonics Week (New York), vol. 28, no. 11, 12 March 1987, p. 16.

The Indian Government reports that it will allocate US $510 million for atomic energy in fiscal 1987-88. This represents an increase of $50 million over last year's appropriation. The additional funds will be used for heavy water projects at Manuguru and Hazira and a synthesis gas plant at Nangal. In addition, $76 million will be spent for fuel reprocessing and other industrial projects at the Bhabha Atomic Research Center.

"Indian Scientists Exploring U Enrichment, Advanced Technologies." Nucleonics Week (New York), vol. 28, no. 10, 5 March 1987, pp. 9-10.

Dr. Raja Ramanna, retiring Chairman of the Atomic Energy Commission, reports that India has the capability to enrich uranium "to any degree that the country requires."

Speaking to reporters at the Bhabha Atomic Research Center (BARC). BARC Director P.K. Iyengar details the major developments in nuclear research over the past year:

1) Dhruva, the 100-MW high-flux research reactor, has been operating at about 25 megawatts since early December 1986 The reactor went critical in August 1985, but had to be shut down for ten months for design changes. Engineers are still working to overcome other obstacles to operation at full capacity. The reactor can produce as much as 55 pounds of weapons-grade plutonium a year.

2) The treatment and storage of radioactive waste continues to be a major problem. An interim storage facility in Tarapur is nearing completion, while a nearby waste vitrification plant is entering its third year of operation The plant employs an indigenously-developed process for incorporating oxide wastes with a borosilicate matrix. Similar facilities are expected in Trombay by 1990 and in Kalpakkam by 1993.

3) BARC scientists are also experimenting with food irradiation and the use of robotics in the maintenance and decontamination of nuclear reactors. In addition they have conducted extensive research in magneto-hydrodynamics (MHD). a technology which provides a highly efficient

direct method of converting thermal energy from coal into electricity.

4) The new Center for Advanced Technologies, currently under construction in Indore, will employ 100 BARC scientists in research focusing on laser and accelerator technologies.

"N. Srinivasan Will Quit." Times of India (Bombay), 3 March 1987, p. 5.

N. Srinivasan, chief executive of the Heavy Waters Project of the Indian Department of Atomic Energy, has submitted his request for voluntary retirement at the end of April 1987. His resignation comes in the wake of the controversial appointment of M.N. Srinivasan (no relation) to succeed Dr. Raj Ramanna as the chairman of the Atomic Energy Commission. N. Srinivasan claims that there is no connection between this appointment and his own decision to seek retirement.

Nawaz, Shamsa. India's Nuclear Weapons Programme. Lahore: Progressive Publishers, 1985. Uncatalogued.

In this master's thesis, Nawaz surveys the history of India's nuclear program and argues that the Chinese nuclear test of 1964 drove India to develop a nuclear weapons capability under the guise of a peaceful energy program. The author describes each of India's nuclear facilities and its capacity to contribute to the military effort. She also traces the history of India's nuclear policy debate and the methods that Indian leaders have employed in creating a consensus for continued nuclear research. She argues that India's regional and global ambitions will continue to be an obstacle to the signing of the Non-Proliferation Treaty (NPT). The book contains numerous maps and tables and an appendix with the full text of the NPT.

"Pakistan Has A-Bomb." Times of India (Bombay), 2 March 1987, p. 1.

Dr. Abdul Qader Khan, Pakistan's top nuclear scientist, confirms US intelligence reports that Pakistan has succeeded in producing weapons-grade uranium and actually possesses a nuclear weapon. In an interview with Indian journalist Kuldip Nayar that appeared in The Observer of London, Dr. Khan claims that Pakistan has not yet tested the bomb for fear of losing US military aid. He also reports that an estimated US $5 billion of Arab funding went into the Pakistani nuclear program, including a substantial amount from Libya.

"Pakistani Journalist Says Khan Did Indicate His Country Has Bomb." Nucleonics Week (New York), vol. 28, no. 11, 12 March 1987, p. 13.

Syed Mushahid Hussain, editor of the Islamabad-based Muslim, resigns under government pressure after printing a statement confirming the authenticity of Kuldip Nayar's controversial interview with Pakistani nuclear scientist Abdul Qader Khan. Hussain was present during the interview in which Khan reportedly admitted that Pakistan had already produced a nuclear weapon. Both Khan and the Pakistani Government challenged the accuracy of the report.

Seshu, Geeta. "Thal N-Disaster Averted." Indian Express (Bombay), 30 March 1987, p. 1.

A major accident at the Thal Heavy Water Plant was narrowly averted after engineers discovered that an intense build-up of heat had eroded several of the metal pins which conveyed electricity to the plant motors. According to highly placed sources in the Department of Atomic Energy, further erosion of the pins could have caused a fire and possibly an explosion. The damage was discovered when a short-circuit in the plant caused the

pumps to stop. Repairs were completed and the plant resumed normal operation within a week.

The plant continues to experience problems with the purification of carbon monoxide and carbon dioxide feed gas. The current purification process creates waste products which clog the pipelines, requiring the constant and very costly flushing of the system.

2. TACTICS AND ORGANIZATION OF THE AFGHAN RESISTANCE

GLOSSARY OF TERMS

Commander	A resistance fighter who is recognized as a military leader in local or regional areas of conflict; some commanders are respected outside their own regions, but there is not yet a coordinated, nationwide, insurgent command in Afghanistan. The title commander is the only honorific or rank recognized by the resistance movement.
Dushmani	(singular: dushman) Soviet pejorative term for Afghan insurgents; it means "bandit" and originated during the 1930s Central Asia resistance.
DRA	The Democratic Republic of Afghanistan was established as the result of a coup led by Mohammad Nur Taraki and Hafizullah Amin in April 1978. Deteriorating internal security led to military intervention by the Soviet Union in December 1979 and Amin was killed by the invading troops. The Soviet invasion transformed armed resistance toward the modernistic but arbitrary reforms of Taraki and Amin into a war of national liberation.
KHAD	DRA intelligence service whose operations are entirely directed by its many Soviet KGB advisors. The acronym stands for Khedmat-Etala'at-e-Daulati (State Information Service). KHAD received ministerial rank in January 1986.
Mujahideen	(singular: mujahid) This Islamic term means "holy warrior," but it is most often used as a name for Afghanistan's resistance fighters, who consider their campaign a jihad (holy war) to drive unbelievers from their country.
Spetznaz	Soviet special warfare troops under the GRU (Military Intelligence Directorate) of the Soviet Ministry of Defense. These highly mobile units are deployed throughout Afghanistan for operations which require more skill or loyalty than is commonly displayed by Soviet or DRA troops.

CITATIONS AND ABSTRACTS

Dunbar, Charles. "Afghanistan in 1986." Asian Survey (Berkeley), February 1987, Vol. XXVII, no. 2, pp. 127-142. DS35.A864

The author, the Special Assistant for Afghanistan--Department of State, offers a cautious assessment of the war in Afghanistan in 1986. He makes no forecast as to the eventual outcome of the struggle but states that the military situation remains a "standoff". More easily observed, however, are the politics of the war which the author views as increasingly crucial. The resistance "Alliance" he notes, has begun a process of institutional development which it previously lacked. The Alliance's continued unity could make it an interlocutor in any serious peace effort Moscow might decide to make.

Ottaway, David B. "Rebels Hit Victims Inside Soviet Union." Washington Post, 13 April 1987, pp. A1,A24.

Mujahid rocket fire claimed the life of at least one victim inside the Soviet Union on 8 March. Although the resistance claims to have staged several earlier cross-border attacks, this is the first time the Soviet Union has reported such an incident. Pravda, the Soviet party newspaper, accused the mujahideen in general, and the Hizb-i-Islami resistance party specifically, of trying to sabotage Soviet/DRA efforts to establish a government of national reconciliation. Allah Sultani, a Hizbi spokesman, had a different interpretation. He declared that the mujahideen were not only fighting to free Afghan territory but also to free all Muslim brothers in Soviet Central Asia under Communist control.

Weintraub Richard B. "Sen. Humphrey Visits Moscow, Kabul." Washington Post, 15 April 1987, p. A30.

After visiting Moscow and Kabul in April, Senator Gordon Humphrey (R-N.H.) said in a New Delhi interview that Soviet policy makers were "overconfident, cocky, and self-deluded" about their position in Afghanistan. Humphrey, an ardent supporter of the anti-Soviet mujahideen, believes that the Kremlin is showing little

indication that it is worried about its position in Afghanistan. He urged the Reagan administration to make further US ties with Moscow contingent on a solution to the conflict. Humphrey also mentioned that he had asked New Delhi to use its "special relationship" with the Soviet Union to persuade the Soviets to pull their forces out of South Asia thereby lessening tensions in the region.

Weintraub, Richard M. "Afghan City Scarred by War." Washington Post, 6 May 1987, pp. A1,A34.

The author, accompanied by two other American journalists, reports on an overnight, DRA-sponsored visit to Herat in western Afghanistan. He found that the city was not the turmoil-ridden place often described in the western press, nor was it the trouble-free place Communist officials wanted foreigners to believe. While the PDPA party secretary for Herat Province was telling the author that there had been no security problems in the past year, the sound of artillery could be heard in the distance. The party official also claimed that the city's population was only slightly lower than it had been before the 1979 Soviet invasion. This assertion was quietly challenged by other residents who privately told the author that the population had decreased by 20 percent in recent years.

Weintraub, Richard M. "Afghan Party Still Struggles After 9 Years." Washington Post, 17 May 1987, p. A34.

The People's Democratic Party of Afghanistan (PDPA), after 9 years in power, still has few followers and remains estranged from the masses of Afghanistan. Most members of the PDPA are westernized in dress and contrast sharply in physical appearance with their tradition-bound opponents--the mujahideen. These differences are punctuated by the ruling party's adherence to the culturally alien ideology of Communism. The party has been plagued by bitter divisions in its ranks. After a 2-week visit to Kabul, the author noted that party spokesmen were at pains to try to convince outside

observers that the PDPA was unified, attributing reports of party disunity to enemy propaganda. Both East European and Western diplomats, however, report that the PDPA is rife with disputes and divided into mutually antagonistic factions. It is rumored in fact, that recent bombings in Kabul may have been the work of Karmal loyalists.

Weintraub, Richard M. "Kabul Life Difficult for Russians." Washington Post, 13 May 1987, p. A31.

With their dependents included, the number of Soviet citizens living in Kabul could be as many as 20,000 but no one is certain of the exact number. There are three heavily protected Soviet-style housing projects in the capital. Selected Afghan PDPA members are also allowed to live in the projects. The author, in Kabul by DRA invitation, also notes that few Soviet soldiers are seen in town. This is because, he was told, the Soviet soldier, unlike his western counterpart, lives in a camp--if he wants a drink, for example, he goes to the military canteen and not into town.

Weintraub, Richard M. "Soviets Bolstering Afghanistan Ties." Washington Post, 13 May 1987, pp. A1, A31.

Behind the Soviet military presence in Afghanistan is a vast network of trade, aid, and cultural relations which is intended to endure even in the event of a future troop pullout. Some independent observers believe that Moscow spends more than $300 million a year providing for the nation's non-military needs. Thousands of Soviet advisers are engineering a Soviet-style bureaucracy, and tens of thousands of young Afghans are being trained in the USSR for future service to the regime. One diplomat estimates that 15,000 young Afghans between ages 7 and 20 are at any given time, receiving between two and five years of Soviet education. "Sovietization" activities, both educational and economic, have been especially intensive in the northern part of Afghanistan and some observers believe that this area could ultimately be absorbed into the USSR.

Other observers deride such speculation, noting that control of an area must precede colonization.